

**REMARKS**

**Claim amendments**

Claims 15-18 are pending in the application. Claims 15 and 16 have been amended and new claim 18 has been added to more clearly claim the present invention. No new matter is added by these amendments, and the amendments are fully supported by the application as filed. For example, support for the rotating carousel can be found, e.g., in the specification in paragraphs [0058] and [0080] of the published application; support for monitoring position of the reaction vessel can be found, e.g., in paragraphs [0055] and [0079]; and support for reaction vessels being capillaries can be found, e.g., in paragraph [0078]. Entry of the amendments is respectfully requested.

**Claim rejections under 35 U.S.C. § 103**

Claims 15-17 were rejected under 35 U.S.C. § 103(a) as being unpatentable over King et al. (US2004/0014202), Lee et al. (Biotechniques, vol. 27, pp. 342-349, 1999), Wittwer et al. (Methods, vol. 25, pp. 430-442, 2001), Amirkhanian et al. (US6,870,165), and Belfer (US5,563,588).

The examiner alleges that King et al. describes a real time PCR instrument as claimed, but concedes that King et al. does not describe an instrument having at least 5 fluorescent detectors and central detection wavelengths separated by at least 25 nm. However, the Examiner alleges that Lee et al. and Wittwer et al. make up for King et al.'s shortcoming. The Examiner further concedes that "none of the references teach an arrangement where the light does not pass through a wavelength excluding device prior to being distributed into optical fiber bundles." However, the Examiner alleges that Belfer and Amirkhanian et al. make up for King et al.'s shortcoming.

Independent claim 15 has been amended to more clearly recite the claimed invention, making this rejection moot. Amended claim 15 clearly distinguishes the claimed invention over the cited references. Claim 15 now recites a real time PCR instrument including "a

rotating carousel comprising at least 24 reaction vessels containing a reaction mixture, wherein said reaction vessels are positioned in a monitoring position in that fluorescence excitation and monitoring are performed along the same axis of the positioned reaction vessel". None of the cited references describe or suggest such an instrument and configuration.

Furthermore, for the purpose of using the presently claimed instrument, the monitoring positioning of the reaction vessels is an important and beneficial aspect, which can enhance signaling due to the phenomenon of total internal reflectance (see paragraph [0079] of the published application). Such a positioning of the reaction vessels is not described or suggested by any of the cited references.

For the reasons set forth above, the amended independent claims 15 may no longer be rejected as obvious over King et al., Lee et al., Wittwer et al., Amirkhanian et al., and Belfer. Withdrawal of the § 103(a) rejection is respectfully requested.

The remaining claims 16 and 17 depend upon claim 15 and therefore may no longer be rejected as obvious over King et al., Lee et al., Wittwer et al., Amirkhanian et al., and Belfer. Withdrawal of the § 103(a) rejection of the dependent claims is also respectfully requested.

### **Conclusion**

The Applicants believe that all claims in the application are in condition for allowance and such action is respectfully requested.

The Commissioner is authorized to charge the fee for one month extension of time and the RCE fee to Account No. 50-0812. No other fee is believed to be due at this time, however, the Commissioner is authorized to charge any fee deficiency, or credit any overpayment, to Deposit Account No. 50-0812.

If the examiner believes that a telephone conversation would expedite the prosecution of this application, please call the undersigned at the number below.

Date: February 1, 2011

Respectfully Submitted,

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